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GB 1310555 A EP 0258157 A1 WO 96/29490 A1
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(54) Abstract Title
Fence pale made from perforated steel profile

(57) A pale (P), typically for use in a security fence, comprises a length of cold rolled steel profile, the web of which is perforated. Preferably the post has the profile of a V or a corrugated W or D. The web of the profile may be perforated such that the open area is between 20-50 % of the surface area.

In use, a number of pales are joined, using anti-vandal fixings (figure 2), to upper and lower horizontal rails (5) which are then located between end posts (E), fixed in the ground. The perforated pales allow the articles behind the fence to be viewed clearly.

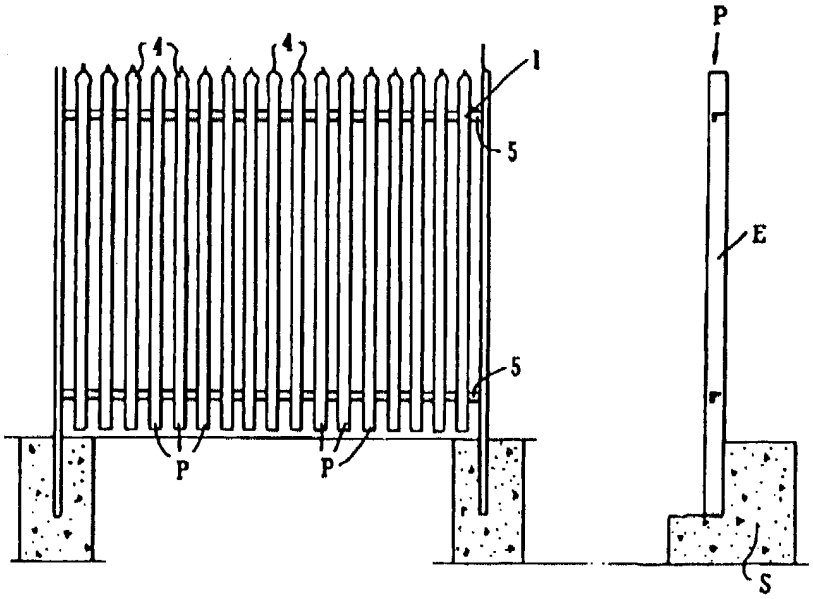


FIG. 1

GB 2 350 846 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date but within the period prescribed by Rule 25(1) of the Patents Rules 1995.

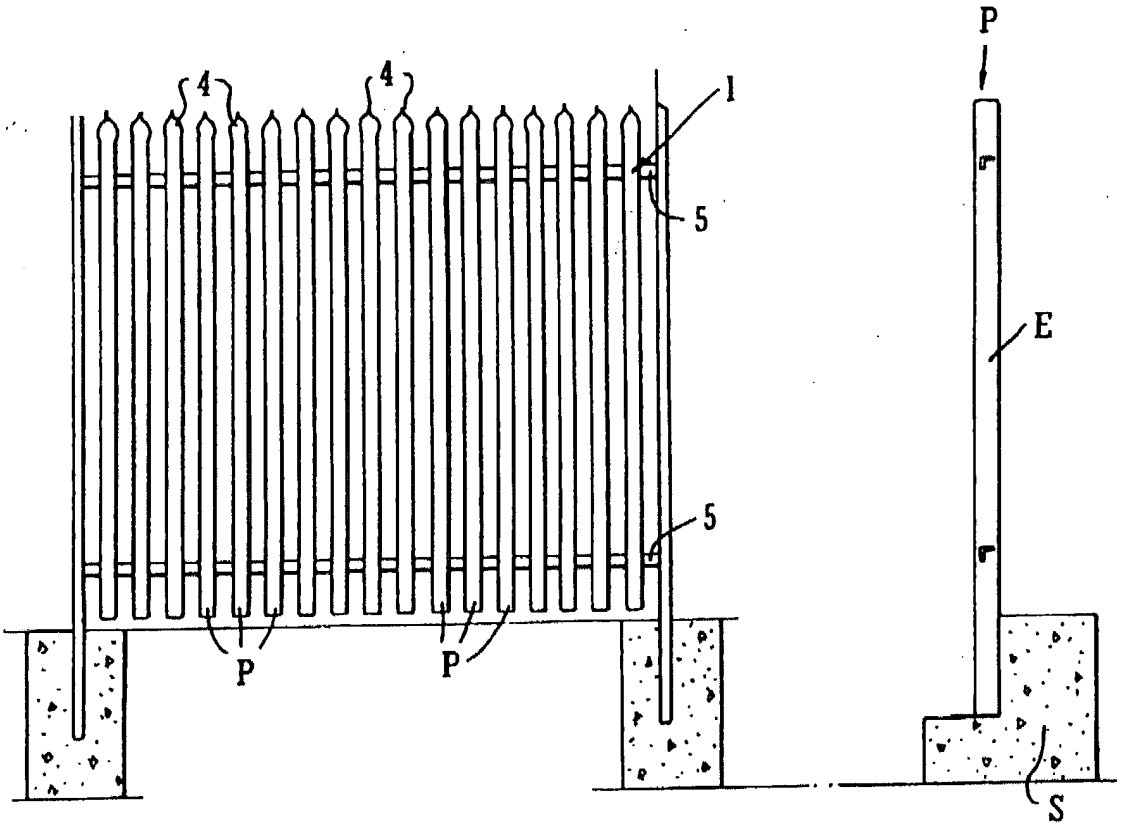


FIG. 1

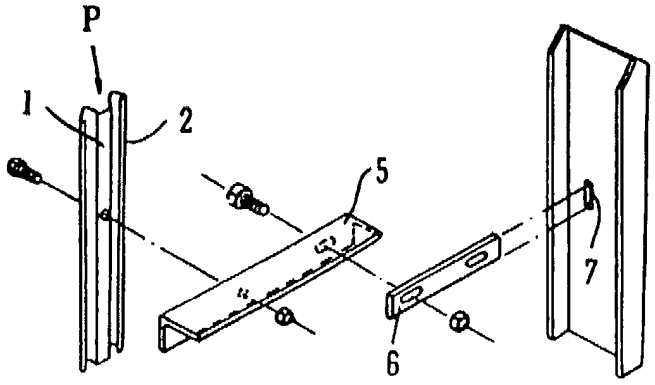


FIG. 2

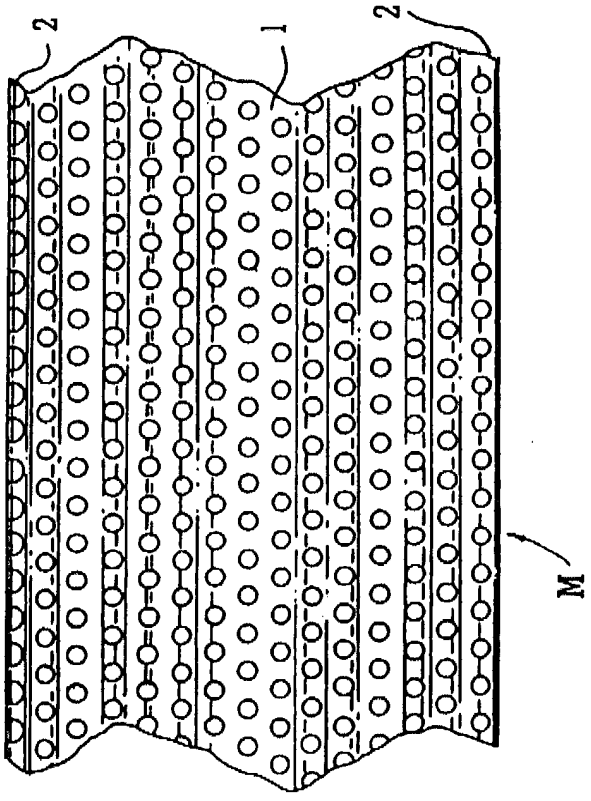
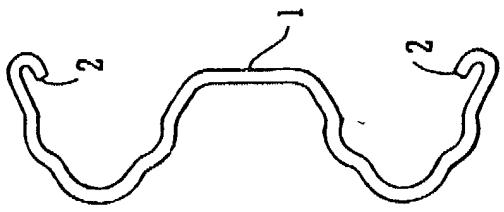


FIG. 3



SECURITY FENCE

The invention relates to a security fence. It is known to make such a fence of spaced apart posts, linked together by horizontal bars, chain link or the like. Such fences are not the best however when used to protect an establishment having articles to be kept secure and yet which are to be displayed. An example is a car forecourt where one wants to display the vehicles in the open but does not want thieves or vandals to gain access. It is one object of this invention to address this problem.

According to this invention in one aspect there is provided a post for use in building a security fence, the post comprising a length of cold rolled steel profile, the web of which is perforated.

The post, which is usually called a pale, may have any suitable arrangement of perforations. Typically the holes will be of uniform size and will be uniformly spread over the web of the pale and its sides. Typically the pale will have the profile of a V, a corrugated W or corrugated D.

The head or top of the pale is preferably shaped to deter climbing. For example it may have one or more points. Where the pale is very short such formations may not be necessary.

A row of pales is located between end posts secured to the substrate. Typically the end posts are made of metal and are bolted to the ground.

In order that the invention may be well understood it will now be described by way of example only with reference to the accompanying diagrammatic drawing, in which:

Figure 1 is a front elevation of a fence incorporating a row of pales of the invention;

Figure 2 is an exploded view showing one pale and the components by which it is joined to an end post;

Figure 3 is an enlarged view of the pale in plan and end view.

The fence comprises two concrete end posts E embedded in concrete, or bolted to the ground. The pales P are made from thin steel sheet which is first perforated to form a mesh M best seen in Figure 3. The sheet is then cold rolled into the section to provide a major web 1 and two side flanges 2 the ends of which are turned in. The section is punched to form standard size holes and to receive anti-vandal fixings and cut to size. As shown, the perforations or holes are on a 5.66mm pitch but this value may be varied. This creates an open area in the metal of between about 20% and about 50% of the surface area. Points are formed at the intended upper end 4.

The end posts are then embedded in a substrate. The pales P are individually joined using anti-vandal fixings to upper and lower horizontal rails 5. A fishplate 6 shown in Figure 2 at each end of the rail is received in a hole 7 in the posts E. When the assembled fence is viewed the holes of the mesh of the pales P allow a relatively clear view of articles behind the fence. The fence is secure, yet the protected area is easily viewed.

CLAIMS

1. A post for use in building a security fence, the post comprising a length of cold rolled steel profile, the web of which is perforated.

2. A post according to Claim 1, wherein the perforations of the web create an open area of from about 20% to about 50% of the surface area.

3. A post according to Claim 1 or 2, wherein the perforations are on a 5.66mm pitch.

4. A post according to any preceding Claim, having a profile of a V, a corrugated W or corrugated D.

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Application No: GB 9913352.2
Claims searched: 1-4

Examiner: Joanne Pullen
Date of search: 29 August 2000

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): E1D DCB, DCX

Int Cl (Ed.7): E04H

Other: Online: EPODOC, WPI, JAPIO. EPODOC, WPI, JAPIO.

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 1310555 A	(MACKENZIE) Whole document, in particular the figures.	1, 2 & 4
X	EP 0258157 A1	(SOCIETE DUNOIS) Figure 1	1 & 4
X	WO 96/29490 A1	(GEBBIE) Whole document	1 & 4
X	WO 95/33113 A1	(HADLEY INDUSTRIES PLC) Figures 1-3	1 & 4
X	US 4619440 A	(THEVENIN et al) Figures 2, 7, 8 and 11. column 2 lines 21-26 and 47-51.	1 & 4

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.